

WHAT IS CLAIMED IS:

1. A picture image input method, comprising:  
inputting a picture image of an object as a  
5 picture image signal;  
creating a histogram of a frequency with  
respect to brightness information of the picture image  
signal;

10 detecting a first brightness which is a  
maximum brightness value within a region not greater than  
a first frequency value on a low brightness side of a  
brightness value which is lower by a preset amount than  
the maximum brightness value within the histogram;

15 detecting a brightness group on a low  
brightness side of the first brightness in the histogram;  
setting a substantially maximum brightness  
value in the brightness group as a highlight point of the  
object; and

20 creating a gradation conversion table which  
converts gradations of the picture image signal on the  
basis of the highlight point.

2. The picture image input method according to  
claim 1, further including:

25 detecting a second brightness value which is  
a maximum brightness value in a range of a second  
frequency value or greater on the low brightness side of  
the first brightness; and

30 detecting a third brightness value which is  
a minimum brightness value in the range of a third  
frequency value or less on a high brightness side of the  
second brightness;

35 wherein brightness values not greater than  
the third brightness value constitute the values of the  
brightness group.

3. The picture image input method according to claim 2, wherein:

the third brightness value is set as the highlight point.

5 4. The picture image input method according to claim 1, further including:

inputting a second picture image of an object as a second picture image signal; and

10 converting gradations of the second picture image signal by the gradation conversion table.

5. The picture image input method according to claim 1, wherein:

15 the gradation conversion table is a positive picture image gradation conversion table which outputs a maximum value with respect to the input value of the highlight point.

20 6. The picture image input method according to claim 1, wherein:

the gradation conversion table is a negative picture image gradation conversion table which outputs a minimum value with respect to the input value of the highlight point.

7. A picture image input apparatus, comprising:  
means for inputting a picture image of an object as a picture image signal;

30 means for creating a histogram of a frequency with respect to brightness information of the picture image signal;

means for detecting a first brightness which is a maximum brightness value within a region not greater than a first frequency value on a low brightness side of a brightness value which is lower by a preset amount than the maximum brightness value within the histogram;

means for detecting a brightness group on a low brightness side of the first brightness in the histogram;

means for setting a substantially maximum brightness value in the brightness group as a highlight point of the object; and

a processor which creates a gradation conversion table which converts gradations of the picture image signal on the basis of the highlight point.

8. The picture image input apparatus according to claim 7, further including:

means for detecting a second brightness value which is a maximum brightness value in a range of a second frequency value or greater on the low brightness side of the first brightness; and

means for detecting a third brightness value which is a minimum brightness value in the range of a third frequency value or less on a high brightness side of the second brightness;

wherein brightness values not greater than the third brightness value constitute the values of the brightness group.

9. The picture image input apparatus according to claim 8, wherein:

the third brightness value is set as the highlight point.

10. The picture image input apparatus according to claim 7, further including:

means for inputting a second picture image of an object as a second picture image signal; and

means for converting gradations for the second picture image signal by the gradation conversion table.

11. The picture image input apparatus according to claim 7, wherein:

the gradation conversion table is a positive picture image gradation conversion table which outputs a maximum value with respect to the input value of the highlight point.

12. The picture image input apparatus according to claim 7, wherein:

the gradation conversion table is a negative picture image gradation conversion table which outputs a minimum value with respect to the input value of the highlight point.